

THE UNIVERSITY OF IOWA



September 10, 2008

Chad A. Stobbe
Land Quality Bureau
Iowa Department of Natural Resources
502 East 9th Street
Des Moines, Iowa 50319-0034

Re: Proposed Changes to 567 IAC Ch. 108

Dear Mr. Stobbe:

The University of Iowa owns and operates a public water supply at its main campus in Iowa City, Iowa, which produces and provides drinking water to the University campus and the University of Iowa Hospitals and Clinics. Lime softening is a part of the treatment process, removing hardness to produce softened water. The University has become aware of proposed changes to Chapter 108 of the Department's rules which, in part, would impact the use of lime produced as a by-product of public water supplies.

Aglime is commonly applied to farm land as a soil supplement. Drinking water production produces a lime by-product that is highly beneficial for use as a neutralizing soil amendment to raise the pH of soils into an optimum range for crop production. It is a direct substitute for quarried calcium carbonate and has the added benefit of a faster response. It is not a hazardous waste and is intuitively low in substances detrimental to the environment since it is precipitated from processes that produce drinking water to EPA standards. The aglime application process is inherently self limiting as farmers do not wish to exceed the optimum pH range for their crop production and therefore limit the application of aglime accordingly.

The proposed amendments to Chapter 108 appear to eliminate this very beneficial re-use of lime by-product from drinking water supplies. The following is pasted from the draft rules:

108.4(9) Lime. Lime produced as a by-product of public water supplies may be used as follows:

a. ~~A soil amendment pursuant to 567 Chapter 121 and the rules of the Iowa department of agriculture and land stewardship or a compost amendment pursuant to 567—Chapter 105.~~

To restrict agricultural land application of public water supplies lime by-products would potentially increase the need for lime sludge dewatering equipment at water plants, increase the non-beneficial use disposal of these by-products into valuable landfill space and increase the

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cost of producing drinking water. The proposed rule changes appear to be contradictory to the policy expressed in Iowa Code Section 455B.301A -- **Declaration of Policy:**

“[T]he following waste management hierarchy in descending order of preference, is established as the solid waste management policy of the state:

- a. Volume reduction at the source
- b. **Recycling and reuse**
- c. Combustion with energy recovery.
- d. Other approved techniques of solid waste management including but not limited to combustion for waste disposal and disposal in sanitary landfills.”

The University requests that the Chapter 108 rules clearly continue to allow the use of public water supply lime by-products as soil amendments. (It appears that the draft rule amendments would continue to allow the use of untreated gypsum wallboard as a calcium additive for agricultural use. Lime by-products from public water supplies should be similarly treated.)

In a related proposed rule change, the July 17, 2008 memo posted on the Department's web site indicates that 567 IAC Chapter 121 would be rescinded in its entirety. 567 Iowa Administrative Code §121.5 currently specifically allows the lime byproduct from water supplies to be applied to “lawns, gardens, flower beds or similar areas associated with residential use. Included also is land where food crops for human consumption are raised or are made available to the general public.” §121.5 further allows its use on “other agricultural lands.”

This rule demonstrates the inherent beneficial and safe use of lime byproduct on lawns, farm land and land used for food crops. The University requests that 567 IAC §121.5 not be rescinded, and that it clearly continue to allow these uses of lime by-product from water supplies.

Sincerely,



Michael Paul Valde
Environmental Compliance Manager

e-mail: michael-valde@uiowa.edu

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Iowa Department of Natural Resources
502 East 9th Street
Des Moines, Iowa 50319-0034

Re: Proposed Changes to 567 IAC Ch. 108

Dear Mr. Stobbe:

This letter addresses proposed changes to 567 Iowa Administrative Code Chapter 108 as those changes relate to coal combustion residue. I previously wrote to you on the referenced proposal regarding the impact of the proposed changes on the lime by-product produced at the University of Iowa water supply.

The University of Iowa also owns and operates a central energy and steam plant on its main campus in Iowa City, Iowa. The University's Main Power Plant produces and supplies steam to the University campus and the University of Iowa Hospitals and Clinics. The University Main Power Plant includes two coal-fired boilers. The University has become aware of proposed changes to Chapter 108 of the Department's rules which would impact the use of coal ash, or "coal combustion residue" (CCR) produced at the Power Plant.

The CCR generated by the Main Power Plant is categorized as beneficial fill material pursuant to the current provisions of 567 Iowa Administrative Code Chapter 108. Under contract, the University transports the CCR to be used as beneficial fill at a quarry, which is operated by the quarry owner according to the provisions of Section 108.6, allowing the quarry to be reclaimed for productive use at the conclusion of its useful life. The Iowa Department of Natural Resources has recently proposed amending Chapter 108 in a manner that would prohibit this and other uses for these types of materials. The rationale for the Department's proposal was set out in a memo to Iowa Stakeholders dated July 17, 2008, and which is posted on the Department's web site at: <http://www.iowadnr.com/waste/policy/beneficialuse.html>

The limited justification given for prohibiting the beneficial use of CCR as fill was that "these activities more closely resemble monofill and landfill projects than beneficial use projects." The Department has cited no specific evidence that the existing practices have caused harm to human health or the environment. The Department seems to have summarily concluded that the use of CCR as fill is not a beneficial use. By definition (§108.3), beneficial use assumes that when a by-product is not harmful to human health or the environment, it should be allowed to be reused

in a manner that will provide a benefit to society. The Department's proposal turns the concept of "reuse" on its head by saying that "while the use of solid by-products for fill can provide benefits, such fill projects are not beneficial use projects."

The University is concerned with the proposal based on several considerations, including cost impacts, the basis, or lack of basis for changing the rules, and lack of scientific evidence demonstrating harm to the environment or human health. The cost implications are uncertain, but our current site owner has estimated that if the material cannot be used in the current manner the cost increases would likely be substantial, perhaps doubling or more. We are not aware of evidence that the current practice causes harm to human health or the environment, and the Department has not cited studies or instances of such an adverse effect. Current requirements of Chapter 108.6, include leachate parameters, pH restrictions, and specific siting criteria relating to waterways, wetlands, floodplains, aquifers, sinkholes, and wells. Does the Department have evidence that the current allowed uses have caused adverse health or environmental effects?

If the DNR's draft language is adopted, CCR will, in many instances, go to a landfill (in disregard of the waste stream reduction goals of Iowa Code Chapter 455D) or into monofills (taking productive land out of service). While increasing landfill burden, the proposal also reduces the likelihood that reclamation of quarry land will occur.

The likely impact would be that more CCR would necessarily be sent to landfills, using valuable space, rather than being recycled and reused as fill. The proposed rule changes appear to be contradictory to the policy expressed in Iowa Code Section 455B.301A -- **Declaration of Policy:**

"[T]he following waste management hierarchy in descending order of preference, is established as the solid waste management policy of the state:

- a. Volume reduction at the source
- b. **Recycling and reuse**
- c. Combustion with energy recovery.
- d. Other approved techniques of solid waste management including but not limited to combustion for waste disposal and disposal in sanitary landfills."

We would ask that, absent evidence that the current rule and practices are injurious to human health or the environment, the rule remain unchanged. The Department should have at least some rational basis to make such significant changes to a long-standing rule that has operated successfully for years with no known detrimental impacts. Consideration should be given to allowing continued use of CCR for beneficial fill under current rule provisions. The Department should promote the reduction of landfilling waste particularly when, as here, it results in the ability to reuse quarry land that would otherwise be unusable.

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Thank you for the opportunity to comment on the draft proposed rule changes. Please feel free to contact me at 319-335-6190 or by e-mail at michael-valde@uiowa.edu with any questions that you may have or if you desire any additional information.

Sincerely,



Michael Paul Valde
Environmental Compliance Manager